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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/756,832	01/09/2001	Lannie R. Bolde	FIS9-2000-0300-US1	6866

7590 03/29/2002
Graham S. Jones, II
42 Barnard Avenue
Poughkeepsie, NY 12601-5023

EXAMINER

PITTMAN, ZIDIA T

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 03/29/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/756,832

Applicant(s)

BOLDE, LANNIE R.

Examiner

Zidia Pittman

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

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DETAILED ACTION

Claim Objections

Claims 17 and 18 are objected to because of the following informalities: Each claim is dependent upon independent claim 19, which is an ensuing claim and not a preceding claim. A dependent claim must follow the claim from which it depends. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-27 are rejected under 35 U.S.C. 102(a) as being anticipated by Bergeron et al (USPN 6,163014).

Claims 1-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Bergeron et al (USPN 6,163014).

Bergeron et al teaches a nondestructive, low stress removal process for soldered electrical components. The process includes applying lateral shear forces to the carrier and the chip with the carrier and chip located in an appropriate temperature profile

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environment such that the chip and carrier are laterally moved with respect to each other when separation of the chip and carrier occurs at a temperature below the liquidus temperature of the solder joining the contacts of the chip and carrier. An apparatus is provided for removing a chip from a substrate to which it is soldered. Lateral shearing forces are applied to the chip and substrate as heat is applied to disassemble the chip from the substrate. A top plate having an opening forming a substrate cavity slides on the bottom plate and supports the substrate. A mechanism is provided, such as a spring or vacuum device or pneumatic ram, to exert a shearing force on the substrate while the chip is held on the bottom plate by the protrusions as the temperature is raised. Disassembly shear stress is introduced into solder balls by loading substrate with force and chip with force. A fixture is illustrated for holding die assembly during disassembly. (abstract; Figures 3 and 9-11; column 3 lines 12-45; column 2 lines 45-67; column 5 lines 1-54; column 6 lines 24-58)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bergeron et al (USPN 6,333,491), Bergeron et al (USPN 6,320,163), Hembree et al (USPN 6,313,651), Hembree et al (USPN 6,300,782), Roldan et al (USPN 6,005,292), and Falcone et al (USPN 5,836,071) are cited as of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zidia Pittman whose telephone number is (703) 305-

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1248. The examiner can normally be reached on Monday – Thursday and alternate Fridays from 8:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn, can be reached at (703) 308-3318. The official fax phone number for the organization where this application or proceeding is assigned is (703) 305-7718. The unofficial fax number for art unit 1725 is (703) 305-6078.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



TOM DUNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700